Application No.: 10/087,190 Docket No.: 511582003420

CLAIM AMENDMENTS

1-3. (canceled)

4. (currently amended): ~~A composition of claim 1 wherein the substance comprises an~~ An antibody or fragment thereof that specifically binds to ~~a 121P1F1-related protein~~ SEQ ID NO: 2.

5. (currently amended): The antibody or fragment thereof of claim 4, which is a monoclonal antibody.

6. (currently amended): ~~A recombinant protein comprising an antigen binding region of a~~ The antibody or fragment thereof of claim 5, wherein the monoclonal antibody ~~of claim 5~~ is recombinantly produced.

7. (currently amended): The antibody or fragment thereof of claim 4, which is ~~labeled with a detectable marker~~ conjugated to an agent.

8. (canceled)

9. (currently amended): The antibody or fragment ~~of an antibody~~ thereof of claim 4, [[~~which~~]] wherein the fragment is an Fab, F(ab')2, Fv or sFv fragment.

10. (currently amended): The antibody or fragment thereof of claim 4, which is a human antibody, a humanized antibody or a chimeric antibody.

11. (currently amended): A non-human transgenic animal that produces an antibody ~~of claim 4~~ or fragment thereof that specifically binds to a protein comprising SEQ ID NO: 2.

12. (currently amended): A hybridoma that produces an antibody ~~of claim 5~~ or fragment thereof that specifically binds to a protein comprising SEQ ID NO: 2.

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13. (currently amended): [[~~A~~]] The antibody or fragment thereof of claim 6, wherein the monoclonal antibody is a single chain monoclonal antibody that immunospecifically binds to a ~~121P1F1-related protein, and that comprises the variable domains of the heavy and light chains of a monoclonal antibody of claim 5~~ protein comprising SEQ ID NO: 2.

14. (canceled)

15. (currently amended): A method of delivering ~~a cytotoxic agent or a diagnostic~~ an agent to a cell that expresses 121P1F1 (SEQ ID NO: 2), said method comprising:

providing the ~~cytotoxic agent or the diagnostic~~ agent conjugated to an antibody or fragment thereof of claim 4; and,

exposing the cell to the antibody-agent or fragment-agent conjugate.

16-18. (canceled)

19. (currently amended): [[~~The~~]] An immunogenic composition ~~of claim 1 wherein the substance comprises an analog of a peptide of eight, nine, ten, or eleven contiguous amino acids of Figure 2A, Figure 2B, Figure 2C, Figure 2D, Figure 2E, or Figure 2F (SEQ ID NO: ____)~~ comprising an immunogenic portion of SEQ ID NO: 2.

20. (currently amended): [[~~A~~]] The immunogenic composition of ~~claim 1~~ claim 19 wherein the ~~substance~~ immunogenic portion comprises a CTL polypeptide epitope of the amino acid sequence of Figure 2A, Figure 2B, Figure 2C, Figure 2D, Figure 2E, or Figure 2F (SEQ ID ~~NO: ____)~~ NO: 2), with a *proviso* that the epitope is not the entire amino acid sequence of Figure 2A (SEQ ID ~~NO: ____)~~ NO: 2.

21. (currently amended): The immunogenic composition of claim 20 wherein the CTL epitope comprises a polypeptide selected from Tables V-XVIII, XXVI, and XXVII, with a *proviso* that the epitope is not the entire amino acid sequence of Figure 2A (SEQ ID ~~NO: ____)~~ NO: 2).

22-47. (canceled)

48. (currently amended): A method ~~of claim 47~~ of inhibiting growth of cancer cells that express 121P1F1, ~~the method~~ comprising ~~steps of~~:

administering to said cells an antibody or fragment thereof ~~either of~~ which specifically bind to a 121P1F1[[~~-related~~]] protein (SEQ ID NO: 2).

49. (currently amended): [[~~A~~]] The method of ~~claim 47~~ claim 48 ~~of inhibiting growth of cancer cells that express 121P1F1, the method comprising steps of:~~

~~administering to said cells a vector that encodes~~ wherein the antibody or fragment thereof is a single chain monoclonal antibody that immunospecifically binds to [[~~an~~]] the 121P1F1[[~~-related~~]] protein.

50-53. (canceled)

54. (currently amended): [[~~A~~]] The method of ~~claim 47~~ claim 48 of inhibiting growth of cancer cells that express 121P1F1 and a particular HLA molecule, the method comprising steps of:

administering to said cells human T cells, wherein said T cells specifically recognize an 121P1F1 peptide sequence in the context of the particular HLA molecule.

55-64. (canceled)

65. (currently amended): A method of generating a mammalian immune response directed to 121P1F1 (SEQ ID NO: 2), the method comprising:

exposing cells of the mammal's immune system to an immunogenic portion of

a) ~~an 121P1F1-related protein~~ SEQ ID NO: 2 and/or

b) a nucleotide sequence that encodes said protein,

whereby an immune response is generated to 121P1F1.

66. (currently amended): [[A]] The method ~~of inducing an immune response~~ of claim 65, ~~said method comprising:~~

~~providing a 121P1F1 related protein~~ wherein the immunogenic portion of SEQ ID NO: 2 that comprises at least one T cell or at least one B cell epitope[[;

~~contacting the epitope with a mammalian immune system T cell or B cell respectively, whereby the T cell or B cell is induced~~]].

67. (currently amended): The method of claim 66, wherein the ~~immune system cell is a B cell, whereby the induced~~ cell epitope induces a B cell ~~generates antibodies~~ to generate an antibody that specifically binds to the ~~121P1F1 related protein~~ B cell epitope.

68. (currently amended): The method of claim 66, wherein the ~~immune system cell is a~~ T cell epitope activates [[~~that is~~]] a cytotoxic T cell (CTL)~~, whereby the activated CTL kills~~ which is capable of killing an autologous cell that expresses the 121P1F1[[~~-related~~]] protein.

69. (currently amended): The method of claim 66, wherein the ~~immune system cell is a~~ T cell [[~~that is~~]] activates a helper T cell (HTL), whereby the activated HTL secretes cytokines that facilitate the cytotoxic activity of a cytotoxic T cell (CTL) or the antibody producing activity of a B cell.

70. (currently amended): An assay for detecting ~~the presence~~ expression levels of a 121P1F1[[~~-related protein or polynucleotide~~]] gene product in a biological sample and a normal sample obtained from a patient who has or who is suspected of having cancer, comprising ~~steps of~~:

contacting the biological sample ~~with a substance of claim 1~~ and the normal sample an antibody or fragment thereof that specifically binds to the 121P1F1[[~~-related protein or polynucleotide, respectively~~]] gene product; and[[;]]

determining that there is a complex of the ~~substance~~ antibody or fragment thereof and 121P1F1[[~~-related protein or the substance and 121P1F1 related polynucleotide, respectively~~]] gene product.

71-77. (canceled)

78. (new) The antibody or fragment thereof of claim 7, wherein the agent is a diagnostic agent or a cytotoxic agent.

79. (new) The antibody or fragment thereof of claim 78, wherein the cytotoxic agent is selected from the group consisting of radioactive isotopes, chemotherapeutic agents and toxins.

80. (new) The antibody or fragment thereof of claim 79, wherein the radioactive isotope is selected from the group consisting of ^{211}At, ^{131}I, ^{125}I, ^{90}Y, ^{186}Re, ^{188}Re, ^{153}Sm, ^{212}Bi, ^{32}P and radioactive isotopes of Lu.

81. (new) The antibody or fragment thereof of claim 79, wherein the chemotherapeutic agent is selected from the group consisting of taxol, actinomycin, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, gelonin, and calicheamicin.

82. (new) The antibody or fragment thereof of claim 79, wherein the toxin is selected from the group consisting of diphtheria toxin, enomycin, phenomycin, Pseudomonas exotoxin (PE) A, PE40, abrin, abrin A chain, mitogellin, modeccin A chain, and alpha-sarcin.